

REMARKS

This Amendment responds to the Office Action dated December 15, 2006 in which the Examiner rejected claims 1, 4, 9 and 10 under 35 U.S.C. §112, second paragraph, and under 35 U.S.C. §102(b).

Applicant would like to thank the Examiner for the telephone interview on April 6, 2007 in which a discussion of *Osamu et al.* and the present invention were discussed. In particular, it was pointed out that the prior art does not disclose both a metal film and an electrode as claimed in claims 1 and 9.

As indicated above, claims 1 and 9 have been amended in order to more particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Applicant respectfully traverses the Examiner's statement that only the second electrode acts as a cathode and the first and third electrodes act as anodes. Applicant respectfully points out that Figure 3 clearly shows that the second electrode acts as an anode and the first and third electrodes act as cathodes. Applicant respectfully brings the Examiner's attention to page 5 of the specification, lines 15-27. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 1, 4, 9 and 10 under 35 U.S.C. §112, second paragraph.

Claim 1 claims an organic electroluminescence display device comprising a substrate, first, second and third electrodes and first and second organic electroluminescence layers. The first electrode is formed on the substrate. The first organic electroluminescence layer is provided on an upper layer of the first electrode. The second electrode is provided on the first organic electroluminescence layer. The second organic electroluminescence layer is provided on the second

electrode. The third electrode is provided on the second electroluminescence layer. The first, second and third electrodes act as an anode and a cathode formed alternately. At least one of the first and second electrodes is a transparent electrode for transmitting electroluminescence light emitted from the first or second electroluminescence layers. A metal film is formed on a boundary between the first electrode which is a cathode and the first organic electroluminescence layer or between the third electrode and the second electroluminescence layer. The metal film is made of one of a) an alkaline metal, b) an alkaline earth metal, c) alkaline metal fluorides, d) alkaline earth metal fluorides, e) alkaline metal oxides, f) alkaline earth metal oxides or g) an alloy of these metals a)-f) with another metal.

Through the structure of the claimed invention having a metal film formed on a boundary between the first electrode and the first organic electroluminescence layer or between the third electrode and the second electroluminescence layer, as claimed in claim 1, the claimed invention provides an electroluminescence display device which suppresses a rise in resistance value while transparency and efficient EL emission is can be maintained. The prior art does not show, teach or suggest the invention as claimed in claim 1.

Claim 9 claims an organic electroluminescence display device comprising a substrate, first, second and third electrodes and first and second organic luminescence layers. The first electrode is formed on the substrate. The first organic electroluminescence layer is provided on an upper layer of the first electrode. The second electrode is provided on the first organic electroluminescence layer. The second organic electroluminescence layer is provided on the second electrode. The third electrode is provided on the second electrode. Odd-numbered

electrodes which are provided are connected to a first electrode terminal and even-numbered electrodes which are provided are connected to a second electrode terminal. At least one of the first and second electrodes is a transparent electrode for transmitting electroluminescence light emitted from the first or second electroluminescence layers. A metal film is formed on a boundary between the first electrode which is a cathode and the first organic electroluminescence layer or between the third electrode which is a cathode and the second organic electroluminescence layer. The metal film is made of one of a) an alkaline metal, b) an alkaline earth metal, c) alkaline metal fluorides, d) alkaline earth metal fluorides, e) alkaline metal oxides, f) alkaline earth metal oxides or g) an alloy of these metal a)-f) with another metal.

Through the structure of the claimed invention having a metal layer formed on a boundary between the first electrode and the first organic electroluminescence layer or the third electrode and the second organic electroluminescence layer, as claimed in claim 9, the claimed invention provides an organic electroluminescence display device which suppresses a rise in resistance value while transparency and efficient EL emission is maintained. The prior art does not show, teach or suggest the invention as claimed in claim 9.

Claims 1, 4, 9 and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by *Osamu et al.* (JP 06-176870).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. §102(b). The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

Osamu et al. appears to disclose at [0011] a positive electrode consists of transparent electric conductive film such as semipermeable membrane, such as gold and nickel, and an indium stannic-acid ghost (ITO), tin oxide (SnO_2). In order to give transparency, it is desirable to make it the thickness of 100-3000Å. Additionally, [0019] discloses a negative electrode of zinc oxide with added alloys and a layered product, and aluminum, such as Mg, Ag, In, calcium, aluminum, etc. [0020] states that the transparent negative electrode 15 consists of aluminum added zinc oxide formed in 1000Å thickness and that the positive electrode 18 is formed of Ag in the thickness of 1000Å.

Thus, *Osamu et al.*'s detailed description in paragraphs [0011], [0019] and [0020] merely disclose that transparent electrodes and alloyed metal (such as Mg, Ag, In, Ca, Al) are used as positive and negative electrodes respectively. In other words, the positive electrode itself is a metal film. A metal film is never formed on the positive electrode. Furthermore, paragraph [0011] discloses "in order to give transparency, as for this positive electrode, it is desirable to make it the thickness of 100-3000Å". This sentence means that the positive electrode itself is made of a metal film having a thickness of 100-3000Å in order to have transparency. Thus, nothing in *Osamu et al.* shows, teaches or suggests both a metal film and a transparent material used as an electrode. Nothing in *Osamu et al.* shows, teaches or suggests a metal film formed on a boundary between the first electrode and the first organic electroluminescence layer or between the third electrode and the second electroluminescence layer as claimed in claims 1 and 9. Attached to this Amendment is Appendix A in which Figure 1 shows the metal film as claimed in claims 1 and 9 while Figure 2 shows the schematic structure of *Osamu et al.*

Furthermore, *Osamu et al.* merely discloses that the positive electrode itself is made of a metal film in order to have transparency. Nothing in *Osamu et al.* shows, teaches or suggests a metal film formed on a boundary between the electrodes which are cathodes and the organic electroluminescence layer in order to achieve suppression of a rise in the resistance value while maintaining a transparency and efficient EL emission.

Since nothing in *Osamu et al.* shows, teaches or suggests a metal film formed on a boundary between the first electrode and the first organic electroluminescence layer or between the third electrode and the second organic electroluminescence layer as claimed in claims 1 and 9, Applicant respectfully requests the Examiner withdraws the rejection to claims 1 and 9 under 35 U.S.C. §102(b).

Claims 4 and 10 depend from claims 1 and 9 and recite additional features. Applicant respectfully submits that claims 4 and 10 would not have been anticipated by *Osamu et al.* within the meaning of 35 U.S.C. §102(b) at least for the reasons as set forth above. Therefore, Applicants respectfully request the Examiner withdraws the rejection to claims 4 and 10 under 35 U.S.C. §102(b).

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: April 9, 2007

By:

A handwritten signature in black ink, appearing to read 'EMAS', is written over a horizontal line.

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